IN THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A method for influencing combustion processes of fuels, comprising:

using~~in which~~ at least one electric ~~means are~~device ~~used~~ for at least one of guiding and~~/or~~ changing a flame, the flame being subjected to ~~the~~ action of an electric field; and

limiting charge carrier transport, from at least one of the flame ~~to~~ and at least one of the field-producing electrodes to at least the other of the flame and at least one of the field-producing electrodes, ~~or vice versa being limited~~ by the fact that the flame and the electrode are separated from each other~~, characterized in that, in order to separate flame and electrode,~~ using an ion-conducting material ~~is used, charge carrier transport from the flame to at least one of the field producing electrodes or vice versa being limited~~.

2. (Currently Amended) The method as claimed in claim 1, wherein material and geometry of the ion-conducting material ~~being~~ are chosen such that a temperature-dependent transition from the insulating to the conductive state takes place as a result of ion conduction, the conductivity remaining limited to permissible values in the conductive state.

3. (Currently Amended) The method as claimed in claim 2, wherein the conductivity ~~being~~ is limited in such a way

that the charge carrier transport is low and the current through the flame does not exceed permissible values.

4. (Currently Amended) The method as claimed in claim 3, wherein the charge carrier transport ~~being~~ is kept so low that, during the combustion process, the occurrence of independent~~, in particular high current,~~ discharges~~, for example of an arc,~~ is prevented.

5. (Currently Amended) The method as claimed in ~~one of the preceding claims,~~claim 1, wherein the charge carrier transport ~~being~~ is limited in such a way that thermo-acoustic emissions are reduced.

6. (Currently Amended) The method as claimed in ~~one of the preceding claims, characterized in that~~claim 1, wherein the fuel used is a pre-mixed gas.

7. (Currently Amended) A device~~ for carrying out the method as claimed in claim 1~~, comprising:

~~or one of claims 2 to 6, by using~~ at least one of stabilizing and~~/or~~ pollutant-reducing ~~means~~ device for influencing the flame during the combustion process, the ~~means~~device ~~having~~ including field-producing electrodes, ~~and~~ at least one of the electrodes being separated from the flame by an insulating material enclosure~~, characterized in that the insulating material enclosure (3) consists of~~ including an ion-conducting material~~,~~ which prevents charge carriers from the flame ~~(2)~~ striking the electrode~~ (7, 9)~~.

8. (Currently Amended) The device has claimed in claim 7, ~~characterized in that~~wherein the material changes to the conductive state as a result of the ion conduction at temperatures of a few 100 K.

9. (Currently Amended) The device as claimed in claim 7~~ and 8, characterized in that~~, wherein the ion-conducting material is aluminum oxide.

10. (Currently Amended) The device as claimed in claim 7, wherein ~~claim 7 and 8, characterized in that~~ the ion-conducting material is a zirconium oxide stabilized with additives.

11. (Currently Amended) The device as claimed in claim 10, ~~characterized in that~~wherein the additives are yttrium oxide.

12. (Currently Amended) The device as claimed in claim 7, ~~characterized in that~~wherein the insulating material enclosure ~~(3)~~ surrounds the flame ~~(2)~~ in such a way that the fuel enters at its one end and the combustion waste gas emerges at the other end.

13. (Currently Amended) The device as claimed in claim 7, ~~characterized in that~~ wherein there is at least one further electrode ~~(1, 9)~~, which is not surrounded by an insulating material enclosure ~~(3)~~.

14. (Currently Amended) The device as claimed in claim 7, ~~characterized in that~~wherein the further electrode ~~(9)~~ is located inside the insulating material enclosure ~~(3)~~.

15. (Currently Amended) The device as claimed in claim 14, ~~characterized in that~~wherein the electrode arranged inside the insulating material enclosure ~~(3)~~ is formed by at least one of a housing ~~or~~ and another electrically conductive part of the burner ~~(1)~~.

16. (Currently Amended) The device as claimed in ~~one of claims~~claim ~~7 to 15, characterized in that~~7, wherein the electrodes ~~(7, 9)~~ are at a potential different from that of the first electrode ~~(1)~~.

17. (Currently Amended) The device as claimed in ~~one of claims 7 to 16, characterized in that~~claim 7, wherein at least one of the electrodes ~~(7)~~ rests in a positive manner from the insulating material enclosure ~~(3)~~.

18. (Currently Amended) The device as claimed in claim 7, ~~characterized in that~~wherein the electrodes ~~(7, 9)~~ of different potential are separated electrically from the insulating material enclosure ~~(3)~~.

19. (Currently Amended) The device as claimed in claim 7, ~~characterized in that~~wherein the insulating material enclosure ~~(3)~~ has electrically insulating leadthroughs ~~(10)~~.

20. (Currently Amended) The device as claimed in ~~one of claims 7 to 18, characterized in that~~claim 7, wherein the electrodes ~~(7, 9)~~ form toroidal annular electrodes.

21. (Currently Amended) The device as claimed in ~~one of claims 7 to 20, characterized in that~~claim 7, wherein the electrodes ~~(7, 9)~~ form cylindrical electrodes.

22. (Currently Amended) The device has claimed in ~~one of claims 7 to 21, characterized in that~~claim 7, wherein the electrodes ~~(7, 9)~~ are formed by at least one of films applied to the outside of the insulating material enclosure and~~/or~~ ~~by~~layers produced by at least one of vapor deposition and~~or~~ spraying on.

23. (Currently Amended) The device as claimed in ~~one of claims 7 to 22, characterized in that~~claim 7, wherein the electrodes ~~(1, 7; 1, 9; 6, 7)~~ are connected by feed lines to a power supply unit ~~(8)~~.

24. (Currently Amended) The device as claimed in claim 23, ~~characterized in that~~wherein the power supply unit ~~(8)~~ supplies a direct voltage.

25. (Currently Amended) The device as claimed in claim 23, ~~characterized in that~~wherein the power supply unit ~~(8)~~ supplies at least one of a clocked direct voltage, an alternating voltage ~~or~~ and a pulsed voltage.

26. (Currently Amended) The device as claimed in claim 23, ~~characterized in that~~wherein the power supply unit ~~(8)~~ supplies at least one of a clocked direct voltage, an alternating voltage ~~or~~ and a pulsed voltage which are superimposed on a constant direct voltage.

27. (Currently Amended) The device as claimed in ~~one of claims 7 to 26, characterized in that~~claim 7, wherein there are sensors for at least one of the frequency and~~/or~~ amplitude of combustion oscillations and~~/or~~ the pollutant concentration in the waste gas stream, the frequency, amplitude and phase of the voltage applied to the electrode being controlled or regulated by at least one of a control and~~/or~~ regulating device such that the combustion oscillations and the pollutant concentration are minimized.